

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An imaging optical system comprising: in order from an object side;

a first lens having positive refracting power,

a second lens having negative refracting power, and a concave surface of which is directed toward the object side,

a third lens having positive refracting power, and a convex surface of which is directed toward an image side, and

a fourth lens having negative refracting power,

wherein the second lens and the third lens are cemented together, and wherein at least one of surfaces of the fourth lens is an aspherical surface.

2. (Currently Amended) An imaging optical system according to claim 1 comprising:

an aperture stop which is arranged at on the object side of the first lens.

3. (Currently Amended) An imaging optical system comprising: in order from an object side;

a first lens having positive refracting power,

a second lens having negative refracting power, and a concave surface of which is directed toward the object side,

a third lens having positive refracting power, and a convex surface of which is directed toward an image side, and

a fourth lens having negative refracting power,

wherein the first lens ~~consists of~~ is made of glass ~~and,~~

wherein the second lens and the third lens are cemented together, and

wherein at least one of surfaces of the fourth lens is an aspherical surface.

4. (Currently Amended) An imaging optical system according to claim 1, wherein ~~at least one of surfaces~~ the aspherical surface of the fourth lens ~~is aspherical and satisfies~~ the following condition is satisfied:

$$-1.0 < \phi_m / \phi_p < 0.25$$

where ϕ_m represents ~~the a power of the lens at the a position of the a~~ maximum light height and ϕ_p represents ~~the a power of the lens at the a~~ paraxial position of the paraxis.

5. (Original) An imaging optical system according to claim 3, wherein both refracting surfaces of the first lens are spherical.

6. (Currently Amended) An imaging optical system according to claim 3, wherein the following condition is satisfied:

$$0.4 < f/f_1 < 2.0$$

~~Where~~ where f represents ~~the a~~ focal length of the whole optical system and f_1 represents ~~the a~~ focal length of the first lens.

7. (Currently Amended) An imaging optical system according to claim 1, wherein the following condition is satisfied:

$$0.5 < r_{2f}/r_{3r} < 4.0$$

Where r_{2f} represents ~~the a~~ radius of curvature of the second lens ~~at on~~ the object side and r_{3r} represents ~~the a~~ radius of curvature of the third lens ~~at on~~ the image side.

8. (Currently Amended) An imaging optical system according to claim 1, wherein the second lens and the third lens ~~are cemented~~ form a cemented lens, and the following conditions are satisfied:

$$0.3 < f_{123}/|f_4| < 2.0$$

$$0.5 < f/|f_4| < 2.0$$

where f_{123} represents a composite focal length of the first lens and the cemented lens consisting of the first, the second lens and the third lens, f_4 represents ~~the a~~ focal length of the fourth lens, and f represents ~~the a~~ focal length of whole optical system.

9. (Currently Amended) An imaging optical system according to claim 1, wherein the following condition is satisfied:

$$0.6 < \text{EXP}/f < 2.0$$

where EXP represents ~~the~~ a length from an object plane to an exit pupil and f represents ~~the~~ a focal length of the whole optical system.

10. (Currently Amended) An electronic instrument comprising the imaging optical system according to claim 1~~2~~.

11. (Currently Amended) An imaging optical system according to claim 1 or 3, wherein the following condition is satisfied:

$$0.40 (1/\mu\text{m}) < F_{\text{no}}/P(\mu\text{m}) < 2.20(1/\mu\text{m})$$

where F_{no} represents ~~the~~ an F number fully opened and P represents ~~the~~ a pitch of an imaging element.

12. (Currently Amended) An imaging optical system according to claim 3, wherein the following condition is satisfied:

$$0.045 < \text{ML}/\text{TL} < 0.100$$

where TL represents ~~whole~~ an entire length of the optical system and ML represents ~~the~~ a minimum axial thickness on the axis of a plastic lens lenses.

13. (Currently Amended) An imaging optical system according to claim 1 or 3, wherein a cemented lens satisfies the following condition is satisfied:

$$-0.30 < R_{\text{ave}}/R_{\text{c}} < 0.15$$

where R_{c} represents ~~the~~ a radius of curvature of ~~the~~ a cemented surface ~~of the cemented lens~~ and R_{ave} represents an average value of ~~the~~ a radius of curvature of ~~incident-side~~ an entrance surface and ~~that a radius of curvature of~~ an exit side surface.

14. (New) An imaging optical system comprising, in order from an object side:

a first lens having positive refracting power,

a second lens having negative refracting power and a concave surface of which is directed toward the object side,

a third lens having positive refracting power and a convex surface of which is directed toward an image side and

a fourth lens having negative refracting power, wherein the second lens and the third lens are cemented together to form a cemented lens, and

wherein the following conditions are satisfied:

$$0.3 < f_{123}/|f_4| < 2.0$$

$$0.5 < f/|f_4| < 2.0$$

where f_{123} represents a composite focal length of the first lens and the cemented lens consisting of the second lens and the third lens, f_4 represents a focal length of the fourth lens, and f represents a focal length of whole optical system.

15. (New) An imaging optical system comprising, in order from an object side:

a first lens having positive refracting power,

a second lens having negative refracting power, and a concave surface of which is directed toward the object side,

a third lens having positive refracting power, and a convex surface of which is directed toward an image side, and

a fourth lens having negative refracting power,

wherein the second lens and the third lens are cemented together, and

wherein the following condition is satisfied:

$$0.40 (1/\mu\text{m}) < F_{\text{no}}/P(\mu\text{m}) < 2.20 (1/\mu\text{m})$$

where F_{no} represents an F number fully opened and P represents a pitch of an imaging element.

16. (New) An imaging optical system comprising, in order from an object side:

a first lens having positive refracting power,

a second lens having negative refracting power, and a concave surface of which is directed toward the object side,

a third lens having positive refracting power, and a convex surface of which is directed toward an image side, and

a fourth lens having negative refracting power,

wherein the first lens is made of glass,

wherein the second lens and the third lens are cemented together, and

wherein the following condition is satisfied:

$$0.40 (1/\mu\text{m}) < F_{\text{no}}/P(\mu\text{m}) < 2.20(1/\mu\text{m})$$

where F_{no} represents an F number fully opened and P represents a pitch of an imaging element.